

## **Integrated Framework for Urbanization, Human Health and Marine Interactions: A PCB Case Study**

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The Washington State Shoreline Management Act (2003) requires shoreline managers to consider interactions among urbanization, ocean/river/estuary systems and human health. Strategies for shoreline management require a framework that integrates both human and environmental information to allow managers to utilize information from a wide range of disciplines and conceptual perspectives. In this paper we describe such a framework, which prompts users to consider various types of information needed for shoreline management and decision making. It draws from well-established conceptual paradigms used in urban ecology, nearshore modeling and human/ecological health risk assessment. The framework was developed in a collaborative way with researchers, shoreline managers, regulators, and members of the Puget Sound Action Team. After presenting an overview of the framework, we will present a case study using PCBs as an example to show how shoreline managers, planners and policy makers can use the framework to synthesize the best available scientific information to identify policy priorities, discover gaps in existing policies, and develop targeted interventions. Support: Pacific Northwest Center for Human Health and Oceans (NIEHS:P50 ES012762, NSF:OCE-0434087), Center for the Study and Improvement of Regulation at CMU/UW, and Regional Geographic Initiative (US EPA Puget Sound Action Team - IAC200304).